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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,256	02/24/2004	Hiroshi Tanaka	00862.023487	1255

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EXAMINER

MATHEWS, ALAN A

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,256	<b>Applicant(s)</b> TANAKA, HIROSHI	
	<b>Examiner</b> Alan A. Mathews	<b>Art Unit</b> 2851	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 6, 10, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) 2, 4, 5, 7-9, and 14 - 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/24/04 &amp; 4/28/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 6-8 and 14-16 are objected to because of the following informalities: In claim 6, lines 1 and 2, and in claim 8, lines 1 and 2, claim 14, line 1, and claim 16, line 1 “the marks”, which is plural, has no proper antecedent basis in the claims, since only one mark on the original stage has been previously recited in the respective claims. Related to the above objection, claim 7, lines 1 and 2, and claim 15, line 1, “the mark” is ambiguous. Claim 7, which depends on claim 6 which had introduced plural marks (i.e. “the marks), now refers to the singular “the mark”. Which mark of the plural marks is “the mark” referring to? Similarly, claim 15, which depends on claim 14 which had introduced plural marks (i.e. “the marks”), now refers to the singular “the mark”. Which mark of the plural marks is “the mark” referring to? Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claim 1, 3, 6, 10, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawashima (U. S. Patent No. 6,023,320). Kawashima discloses in figure 1 and column 6, lines 9-67, an original (reticule) stage 4, which supports the original (reticule) 1. Element 5 is the substrate (wafer) stage 5 which supports the substrate (wafer) 3. Figure 2 discloses reference plates 10 and 11 arranged on the original stage 4. A reference pattern 50a on plate 10, which is arranged on the original stage, is used to align the original stage and the substrate stage (see column 8, lines 1-6). Either mark 50b or a mark 51a on reference plate 11 is a mark which is arranged on the original stage and has a known relative position from the reference pattern 50a. The expression “and is to be projected onto the substrate to form an alignment mark on the substrate” is functional or is intended use and has not been given any patentable weight. With respect to claim 3, element 100 is the control unit which controls a position of the original stage and a position of the substrate stage. With respect to claim 6, figure 2 shows a plurality of kinds of marks.

***Allowable Subject Matter***

4. Claims 11-13, 17 and 18 are allowed. Claims 14 - 16 would be allowed subject to correction of the objection recited in paragraph # 1 above. Claims 2, 4, 5, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 7 and 8 are objected to in paragraph #2 and are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the

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limitations of the base claim and any intervening claims and subject to correction of objection recited in paragraph # 2. The reasons for the indicated allowability of the claims are as follows:

The prior art does not disclose or suggest a measurement unit which measures a position of the alignment mark formed on the substrate in combination with all the other elements recited in the parent claim to dependent claim 2.

The prior art does not disclose or suggest a measurement unit which measures position of the alignment mark formed on the substrate, and a control unit which controls a position of said original stage and a position of said substrate stage based on a measurement result by said measurement unit in combination with all the other elements recited in the parent claim to dependent claim 4.

The prior art does not disclose or suggest wherein the mark includes an identification mark for identifying the kind in combination with all the other elements recited in the parent claims to dependent claim 7.

The prior art does not disclose or suggest said apparatus further comprises a measurement unit which measures a position of the alignment mark formed on the substrate based on the kind in combination with all the other elements recited in parent claims to dependent claim 8.

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The prior art does not disclose or suggest projecting onto the substrate based on the measurement result, a mark which has a known relative position from a reference pattern arranged on an original stage and to align the original stage and a substrate stage, and is arranged on the original stage and to form an alignment mark on the substrate in combination with all the other steps recited in independent claim 11.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents cited in the PTO-1449 are cited for the same reasons they were cited in Applicant's Information Disclosure Statement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (571) 272-2123. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan A. Mathews  
Primary Examiner  
Art Unit 2851

AM

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